DOCUMENT RESUME

ED 233 272 CG 016 851

AUTHOR Winer, Jane L.; And Others
TITLE Vocational Personality Assessment of High School Students Who Have Difficulty Reading.
PUB DATE 14 Apr 83
NOTE 27p.; Paper presented at the Annual Convention of the Southwestern Psychological Association (29th, San Antonio, TX, April 21-23, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Career Awareness; High Schools; High School Students; *Interest Inventories; Occupational Aspiration; Personality Traits; *Reading Difficulties; Test Norms; *Vocational Aptitude; *Vocational Interests
IDENTIFIERS Holland Self Directed Search; *Self Directed Search Form E

ABSTRACT

John Holland's Self-Directed Search-Form E (SDS-E) is a vocational personality assessment instrument based upon the well-known Self-Directed Search (SDS) but designed for use with poor readers or children. Virtually no data are available in the professional literature pertaining to the SDS-E. High school students (N=44) in five remedial reading classes completed the SDS-E under standard conditions, i.e, the instrument was self-administered and self-scored. No relationship was found between reading level and Holland type scale scores. Summary codes, used to indicate personality type and occupational environment, were similar to those obtained by high school norm groups on the SDS. However, there was little agreement between stated aspiration and measured vocational personality. An analysis of the errors and irregularities in the students' performance on the SDS-E suggested that the discrepancy was a function not of reading deficiency but rather of a greatly restricted view of the occupational world. (Author/WAS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

BEST COPY AVAILABLE

ED233272

Vocational Personality Assessment of High School Students Who Have Difficulty Reading

Jane L. Winer, David O. Wilson, and Richard A. Pierce

Texas Tech University

Southwestern Psychological Association

San Antonio, Texas

April 14, 1983

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Jane L. Winer

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

CG 016851

Running head: SDS-E

Abstract

John Holland's Self-Directed Search-Form E (SDS-E) is a vocational personality assessment instrument based upon the well-known SDS but designed for use with poor readers or children. Virtually no data are available in the professional literature pertaining to the SDS-E. High school students (N=44) in five remedial reading classes completed the SDS-E under standard conditions, i.e., the instrument was self-administered and self-scored. No relationship was found between reading level and Holland type scale scores. Summary codes were similar to those obtained by high school norm groups on the SDS. However, there was little agreement between stated aspiration and measured vocational personality. An analysis of the errors and irregularities in the sample's performance on the SDS-E suggested that the discrepancy was a function not of reading deficiency but rather of a greatly restricted view of the occupational world.

Using the Self-Directed Search-Form E with High School Remedial Reading Students

John Holland's Self-Directed Search (SDS; 1970) is a major vocational personality assessment instrument which has commanded great attention in the professional literature. Holland devised an alternative form of the SDS, the SDS-Form E (SDS-E), which he intended to be used with children or with adults who had difficulty reading. Virtually no data pertaining to the SDS-E appear in the professional literature. The investigation reported here provides some descriptive data pertaining to the use of the SDS-E with a sample like that claimed by Holland to be suited to its use. Whether a sample of high school remedial reading students would comprehend the instructions of the SDS-E was one question of interest. Also of interest were the vocational personality characteristics of the sample as compared to normative groups.

METHOD

SAMPLE

The sample consisted of 44 high school students who were enrolled in remedial reading (Title I) classes in a public school in a small town in rural West Texas. There were 29 boys and 15 girls in the class. The modal age was 16 (range 15-18); the modal grade was ninth (range 9-11).

The reading level of the class ranged from fourth to tenth grade (mean = 6.6; median = 6.5).

INSTRUMENT

The SDS-E is much like its parent test, the SDS, but was designed to be easier to read. The SDS is described by its author as "a self-administered, self-scored, and self-interpreted vocational counseling tool" (Holland, 1979, p. 1). Like the SDS, the SDS-E has scales for Activities (termed "Likes" in the SDS-E), Competencies, Occupations ("Jobs"), and Self-Estimates ("Rating Your Abilities"); an Occupational Daydreams section ("Possible Jobs"); and instructions for self-scoring of the assessment booklet. Like the SDS, the SDS-E provides the student with an occupational classification booklet (termed the Occupations Finder in the SDS and the Jobs Finder in the SDS-E), which the student uses to find vocational possibilities which match his or her personality type. Holland's purpose was to minimize the role of external authorities such as counselors, so the self-administering and self-scoring aspects of the SDS are central to its use.

The SDS-E's occupational classification system and its emphasis upon encouraging the student to match his or her personality type with an occupational environment are based upon Holland's theory of vocational behavior, which is described in detail in Holland's writings (e.g.,

Holland, 1973). In brief, the Holland model proposes that there are six personality types and six corresponding occupational environments in the mainstream United States culture. The types are Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). An occupational environment of a given type presents characteristic demands which are best met by individuals of the corresponding type. Likewise, an individual of a given type has characteristic preferences and competencies which are most satisfactorily and satisfyingly manifested in an occupational environment of the corresponding type.

The six types described by Holland are pure types, but in nature the types occur not purely but in combination. Therefore, each individual and each environment may be described in terms of the relative dominance of several types. An individual who is predominantly Investigative and secondarily Artistic, for example, may be described as IA, whereas one who is predominantly Artistic and secondarily Investigative may be described as AI. In theory, each individual and each environment may be described by a code of six letters, each letter indicating the relative strength of that type's characteristics; in practice, individuals and environments tend to be described in one-, two-, or three-letter codes.

The SDS-E was developed for clients who are poor readers, both adults and children. In particular, compared to the SDS, the SDS-E uses a lower-level vocabulary, less complex scoring instructions, and fewer items (203 versus 228). Holland claims that 80% to 100% of American fourth graders know the vocabulary used in the directions for the SDS-E. The occupational titles which comprise one of the scales in the SDS are supplemented by simple definitions in the SDS-E. By implication, the SDS-E would appear to be based upon an assumption that reading skill is the only dimension upon which poor readers and normal readers differ; vocational personality presumably can be assessed in basically the same way for the two populations. Holland (1979) assumed that the SDS and the SDS-E had about equal validities. Wirtenberg (1979, cited in Holland, 1979), reporting on a sample of 115 male and 121 female seventh graders, found reliabilities for the SDS-E subscales which ranged from .56 to .92, about the same as for the SDS (Holland, 1979).

PROCEDURE

The instrument was administered in a classroom setting. No special instructions were given. Although the students completed the SDS-E in a group setting, they worked individually according to the standard procedure.

RESULTS AND DISCUSSION

SAMPLE VERSUS NORMATIVE DATA

The incidence of one-, two-, and three-point SDS-E summary codes obtained by the remedial reading students are presented in Tables 1 (boys) and 2 (girls). Since there are no published normative data for the SDS-E to which the sample data might be compared, normative data for the SDS are presented for purposes of comparison to SDS-E data in Tables 1 and 2.

Insert Tables 1 and 2 about here.

BOYS. The modal primary type (highest scale score or one-point code) for boys in the remedial reading classes was Realistic (39.3%) which corresponds to the modal type for the normative group (40.1%). The major apparent difference in one-point code between the boys in the remedial reading classes and in the normative group was in the Investigative type, with fewer I types in the remedial reading classes (3.6%) than would be expected on the basis of high school norms (22.7%).

The most common two-point codes in the male remedial reading sample corresponded to the most common codes in the normative group. Within the sample, the SR, RS, and RE codes accounted for 57.1% of the boys. These codes are,

respectively, the eighth, first, and sixth most common two-point codes among high school boys (Holland, 1979, p. 14, Table 8); the eight most common two-point codes account for 66.5% of the high school boys in the normative group. The ES code (11th in rank of the normative group), IE (14th), RC (15th), and AR (18th) accounted for 28.5% of the sample boys; the ninth through 18th ranked two-point codes accounted for 26.2% of the normative group. Remaining sample boys (14.2%) were coded ER (19th in the norm group) and CS (20th); these two codes account for 2.1% of the normative group, with the ten least common two-point codes (which account for only 5.3% of the normative group) not represented in the sample.

The comparison of obtained codes and normative data is important for the implications it has for eventual employment. Students were assigned to the remedial reading classes because they were in academic difficulty. Given their presumed academic disadvantage, it would be even more disadvantageous to these students if their vocational personalities (interests, abilities, experiences) were unusual or difficult to match with available occupational environments. Holland (1979, p. 77, Table C-21) presented data pertaining to the distribution of people and jobs requiring at least some high school through graduate school training arranged by Holland code. The Realistic type,

which accounted for 39.3% of the boys in the remedial reading sample, accounts for 50.8% of such jobs held by men; presumably these boys will not be at a disadvantage in finding occupational environments suited to their vocational personalities. The Enterprising types (14.3% of the boys in the sample) may be predicted to have similar advantages since 24.7% of the jobs held by men are of Enterprising high-point code. The remaining 46.4% of the boys in the sample (the I, A, S, and C types), however, may be competing for the remaining 24.4% of the jobs, unless they seek employment not well matched to their personalities.

Holland reported that 53.9% of the normative group of high schol boys are of Holland types (I, A, S, and C) which correspond to these remaining 24.4% of the jobs. That is, adult male employment tends toward the Realistic and Enterprising environments and less toward the other four types, which, nevertheless, are represented among males of all ages. Therefore, adult employment in a job to which one is incongruent in interests, abilities, and other vocational personality characteristics may be a prospect common to somewhat more than half the high school boys in general and to somewhat less than half the boys in the remedial reading sample reported here. This relatively favorable state of affairs for the remedial reading sample,

however, is probably attributable to the very deficiency which placed the sample boys in the remedial reading class. Academic difficulties and associated interests and experiences make it less likely that a boy can aspire to jobs which require high level verbal or abstract skills and more likely that he will take a job of a type which simply exists in large number. The low incidence of the Investigative type in the sample's three-point codes increases the probability that these boys will not be candidates for the Realistic or Enterprising jobs which require special or high-level skills (e.g., IR or RI jobs in engineering).

GIRLS. The modal primary type for girls in the remedial reading classes was Social (60.0%) which corresponds to the modal type for the normative group of high school girls (66.7%). For girls, more I types appeared in the remedial reading classes (20.0%) than in the normative group (8.0%), and somewhat fewer A types appeared in the sample than among the norms (6.7% versus 12.6%). That there were no Realistic or Enterprising types among the girls in the sample is typical of girls in general; these two types comprise only 1.7% of the normative group of girls, although they comprise almost half of the normative group of boys.

The most common two-point codes in the female remedial

reading sample corresponded to the most common codes in the normative group. Within the sample, only five of the 30 possible two-point codes were represented. These five codes are among the seven most common two-point codes for high school girls, accounting for 91.1% of the normative group (Holland, 1979, p. 14, Table 8). The girls sampled here appeared to manifest the same restricted range of vocational personalities which characterizes girls and women in general.

The comparison of obtained codes and normative data has implications for eventual employment of the girls as well as the boys reported here. The distribution of people and jobs held by women (Holland, 1979, p. 77, Table C-21) suggests that the Social code, which accounts for 60.0% of the girls in the remedial reading sample and 66.7% of high school girls, describes the characteristics of only 24.1% of the jobs held by women which require at least some high school training. The discrepancy suggests that these girls will be at a disadvantage in finding occupational environments suited to their vocational personalities. Girls of Conventional type, on the other hand, should be in a more advantageous position, since 13.3% of the sample girls and 11.1% of the normative group girls would be suited for 42.1% of the jobs held by women. The I and A types together accounted for 26.7% of the sample (20.6% of

the normative group) but only 3.3% of the jobs.

The girls in the remedial reading class seemed to reflect the general condition of high school girls. Their vocational personalities were consistent with traditional sex-role socialization which creates an overrepresentation of the Social type relative to available employment. The Social type is far more commonly represented in the female work force than in the male work force (only 7% of male employment is reported to be of the Social type as compared to 24.1% of female employment), but the work force does not provide Social jobs (teaching, counseling, and the like) in sufficient number to absorb the women of this type. The Conventional job market is the most likely second choice for women of traditional Holland types, since Conventional jobs are overrepresented relative to personalities and since Conventional job characteristics are acceptable to traditional views of women's work (e.g., clerical and secretarial jobs). For this sample, as for high school students in general, S and C jobs for girls may be what R and E jobs are for boys: such jobs are what one does when one has no special skills or ideas about one's vocational possibilities. That 17.9% of the jobs held by women are reportedly Realistic when virtually no girls are of this personality type underscores the continuing demand for jobs which require physical labor, working with machines, and

which do not place a premium on verbal or abstract skills. The presumed academic deficiencies of the remedial reading students reported here suggest that increased opportunities for women to work in nontraditional fields may mean a greater likelihood of these girls taking Realistic jobs, not necessarily jobs which are congruent with their vocational personalities.

STATED ASPIRATIONS VERSUS MEASURED PERSONALITY

To shed light on the vocational future of the sample, the Holland types of the students' vocational aspirations as noted in the Possible Jobs section of the SDS-E were compared to their summary codes. This comparison of stated aspiration and measured vocational personality was accomplished by obtaining frequencies of Zener-Schnuelle codes of agreement (Holland, 1979, p. 15, Table 9). The Zener-Schnuelle index permits two three-point codes to be compared on the basis of the order of the types. For example, if the Holland types of the occupational aspiration and of the SDS summary code are both RIE, the Zener-Schnuelle index is 6 for perfect agreement; if the aspiration is RIE but the summary code is RIA, the Zener-Schnuelle index is 5, and so forth.

For 38 (86.4%) of the students in the remedial reading classes, the Zener-Schnuelle index of agreement was 1, which indicates simply that the first letter of either code

matched any letter in the other code. For example, an aspiration of AIR and a summary code of SEA would achieve an index of agreement of 1. For the remaining six students (13.6%), the Zener-Schnuelle index of agreement was 0, which indicates that the first letter of one code is not included in the other code. For example, an aspiration of IRE and a summary code of SEA would achieve an index of agreement of 0. Divergence great enough to obtain indices of 0 through 2 is termed unusual (Holland, 1979, p. 15). Holland (1979, p. 46, Table 18) presents data from 218 high school boys and 148 high school girls which suggest that only 32% of the boys and 29% of the girls exhibit such low agreement between aspirations and SDS summary code. In fact, Zener-Schnuelle codes of 0 and 1 occur with chance expectancy.

The unusually low agreement between aspiration and vocational personality could be accounted for in a variety of ways. An obvious possibility was that the students' reading skills were deficient to the extent that they could not comprehend the testing materials and, as a result, answered more or less randomly. Therefore, two analyses, one of reading level correlates and one of errors and irregularities in test-taking, were conducted to test the possibility that the SDS-E was unsuited for the poor readers for whom it was designed.

READING LEVEL CORRELATES

Pearson correlation coefficients were computed for reading level and Holland type scale scores. The coefficients are presented in Table 3.

Insert Table 3 about here.

No Holland type scale was found to correlate to a statistically significant degree with reading level. Since the SDS-E was designed to be no different from the SDS except in being easier to read, the failure to find a significant correlation between types and reading level may be evidence supporting the use of the SDS-E with the population for whom it was designed. Presumably, students of varying but low reading ability are equally able to achieve high or low scores on the various scales, without reading skills being a contributing factor to scores on one scale or another. The descriptions of the personality types provided by Holland (1979) would make plausible predictions that better readers would score highly on the Investigative scale and that poorer readers would score highly on the Realistic scale. Whereas the summary code data would suggest such a possibility for boys, the correlational data do not support either prediction.

There being little evidence of invalidity of the SDS-E

as a consequence of reading deficiency, an analysis of errors and irregularities was undertaken to discover if the instructions or the arithmetic skills required to score the SDS-E were too complex for this sample and may have led to random test-taking behavior.

ERRORS AND IRREGULARITIES

In general, the 44 students did remarkably well in following the instructions of the SDS-E. Some errors and irregularities occurred, however, and are noted here.

POSSIBLE JOBS. Most students (N=33) listed fewer than five jobs that they had thought about at some time in their lives. This omission cannot be assumed to be an error, since these students may well have had a restricted view of occupational possibilities such that fewer than five job titles came to mind.

LIKES, COMPETENCIES, AND JOBS. Eight students did not count the number of Yes responses and write the sum in the correct box. Nine students made errors in addition.

RATING YOUR ABILITIES. Two students did not properly rank their abilities.

COUNTING YOUR ANSWERS. Seven students made errors in addition. Two students incorrectly copied the scores from previous pages. Two students wrote down the wrong code letters. Two students failed to write down any code letters. One student did not complete this section at all.

WHAT YOUR SUMMARY CODE MEANS. Seven students who listed jobs for their summary codes did not complete the second task, which calls for reversing the summary code and finding additional jobs. Four students did not list any jobs for their summary codes.

SUMMARY. Although mistakes were made, it does not appear that the sample as a whole had unusual difficulty in following the instructions or computing the scores on the SDS-E. Therefore, it would appear that the low agreement between aspiration and obtained scores was due not to the failure of the sample to comprehend the SDS-E but to some other factor.

CONCLUSION

The remedial reading classes sampled for the present investigation seemed to have performed on the SDS-E in much the same way as the normative group of high school students performed on the SDS. Both groups of students tended to manifest Holland types which are traditionally associated with their gender. Both groups would seem likely to experience significant incongruence with the world of work in their adult employment, given the disparities in representation of certain personality types relative to jobs of those types. Where the groups seemed to differ was evident primarily in the agreement between stated vocational aspirations and obtained summary scores on the

SDS or SDS-E. The remedial reading students' aspirations were in far less agreement with their measured vocational personalities than was the case in the normative group. Analyses of the effect of reading deficiencies or complexity of instructions suggested that neither of these factors contributed significantly to this result.

The failure of the majority of the remedial reading students to list as few as five possible jobs that they had ever considered may be the key to the incongruence between aspiration and personality. These students may have had an unusually restricted view of vocational possibilities, to which their reading deficiency may have been a contributing variable. Not being good students and not liking to read are common correlates of placement in remedial reading classes; not associating with those who are good students and who do like to read may also be common to this group. The vocational possibilities which are commonly considered by better students may be alien concepts to these students. Experience in thinking of themselves in terms of a large variety of future possibilities may be lacking.

Remedial reading students may be like high school students in general in variety of vocational personalities, but they may be less career mature, i.e., less ready to make a reasonable career decision based upon available knowledge of themselves and the world of work. As a result,

the SDS-E may be a valuable counseling tool for poor readers, as it was designed to be, because it may permit the assessment of their vocational personalities despite their poor self-assessment skills. However, for the students to put the results of the assessment to good use may require counseling and skills training in areas such as self-evaluation, occupational information seeking, and decision-making. The data reported here suggest that the SDS-E may be of value in the vocational guidance of reading deficient high school students, but, like the SDS, it is only part of a good guidance program.

Footnote

The authors acknowledge the valuable assistance rendered by Margaret Ann Wilson and Pamela Cohen.

References

Holland, J. L. The self-directed search. Palo Alto, Calif.: Consulting Psychologists Press, 1970.

Holland, J. L. Making vocational choices: A theory of careers. Englewood Cliffs, N.J.: Prentice-Hall, 1973.

Holland, J. L. The self-directed search: Professional manual. Palo Alto, Calif.: Consulting Psychologists Press, 1979.

Table 1

Incidence of One-, Two-, and Three-Point SDS-E Summary Codes for Males in Remedial Reading Classes and SDS Summary Codes for Male Normative Group

Sample						Norms		
N	%	N	%	N	%	%	%	%
R	11	39.3				40.1		
		RS	6	21.4			13.9	
				RSA	4	14.3		2.7
				RSE	1	3.6		5.6
				RSC	1	3.6		1.0
		RE	3	10.7			5.9	
				REA	1	3.6		.5
				REC	2	7.1		.4
		RC	2	7.1			1.8	
				RCI	1	3.6		.4
				RCE	1	3.6		.5
I	1	3.6				22.7		
		IE	1	3.6			2.1	
				IES	1	3.6		1.2
A	3	10.7				8.2		
		AR	3	10.7			1.4	
				ARS	3	10.7		.9
S	7	25.0				20.1		
		SR	7	25.0			4.7	

Table 1, continued

Sample						Norms		
N	%	N	%	N	%	%	%	%
				SRA	3 10.7			1.0
				SRE	4 14.3			1.8
E	4 14.3					6.1		
		ER	2 7.1				1.1	
				ERS	2 7.1			.8
		ES	2 7.1				3.1	
				ESR	1 3.6			1.7
				ESA	1 3.6			.3
C	2 7.1					2.8		
		CS	2 7.1				1.0	
				CSE	2 7.1			.5

Sample N=28 (one boy did not finish the SDS-E); normative data from Holland (1979, p. 71), Table C-14, "SDS Summary Codes for High School Boys (N=2169)."

Table 2

Incidence of One-, Two-, and Three-Point SDS-E Summary Codes for Females in Remedial Reading Classes and SDS Summary Codes for Female Normative Group

	Sample						Norms		
	N	%	N	%	N	%	%	%	%
R	0	0.0					.6		
I	3	20.0					8.0		
			IS	3	20.0			5.6	
						ISR 1 6.7			.9
						ISA 1 6.7			3.1
						ISE 1 6.7			.9
A	1	6.7					12.6		
			AS	1	6.7			10.3	
						ASE 1 6.7			3.2
S	9	60.0					66.7		
			SE	4	26.7			11.2	
						SEA 2 13.3			3.7
						SEC 2 13.3			3.8
			SC	5	33.3			17.7	
						SCI 1 6.7			3.8
						SCA 2 13.3			4.6
						SCE 2 13.3			8.3
E	0	0.0					1.1		
C	2	13.3					11.1		

Table 2, continued

Sample						Norms		
N	%	N	%	N	%	%	%	%
		CS	2	13.3			9.4	
				CSI	1	6.7		1.9
				CSE	1	6.7		4.5

Sample N=15; normative data from Holland (1979, p. 72), Table C-15, "SDS Summary Codes for High School Girls (N=2447)."

Table 3

Correlation of Holland Type Scale Scores and Reading Level

	Scale Scores					
	R	I	A	S	E	C
Reading Level	-.07	.08	-.03	-.22	-.13	-.19